

COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO THE  
ELEVENTH SET OF INFORMATION REQUESTS FROM THE D.T.E.  
D. T. E. 05-27

Date: June 22, 2005

Responsible: Earl M. Robinson

- DTE-11-12 Refer to Exh. BSG/EMR-1, at 19, lines 2-5. Provide a tabulation of the Company's cost of removal, by account, for the past 5 years.

Response:

Please see Section 7 of the Bay State depreciation study Exhibit BSG/EMR-2.

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- DTE-11-13 Refer to Exh. BSG/EMR-1, at 19, lines 12-18. Provide all information regarding the "standard analysis approach" used by the Company to estimate the retirement costs of the Company's plant.

Response:

Please see Section 7 of the Bay State depreciation study Exhibit BSG/EMR-2.

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- DTE-11-14 Refer to Exh. BSG/EMR-2, at 4-15 and 4-16. Provide the Company's Net Salvage Experience relative to Account 380 (Services) on an annual basis for the years 1980 through 2003.

Response:

Please see Section 7 (Page 7-25) of the Bay State depreciation study Exhibit BSG/EMR-2.

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- DTE-11-15 Refer to Exh. BSG/EMR-2, at 4-16. Provide the Department with the "forecast analysis" the Company uses to predict future net salvage experience.

Response:

The 2.75 % annual inflation range is an estimate based upon the general long term inflation rate experienced in the United States. Inflation was reviewed for a period of 20, 40, 60, and 90 years. A table showing that comparison accompanies this response.

The forecasted trend analysis is an additional tool to identify the level of estimated future net salvage which will occur at the end of life for the current embedded plant in service.

It needs to be noted that the forecasted net salvage is calculated and displayed in the report simply as an additional information source. In the development of the proposed depreciation rates, the forecasted information was considered in analyzing and estimating the future net salvage from the historically experienced net salvage. The calculated forecasted net salvage clearly serves to reinforce the conservative level of net salvage included in the depreciation rate calculation.

Whether or not there is statistical support for the use of a linear trend analysis, therefore, becomes a moot point given that the future net salvage estimate is not a direct result of the forecast calculation.

The trend formula (for the gross salvage component of the analysis) is incorporated into the MS Visual Basic routine and is the MS Excel "Trend" function where the arguments are the first and last year's gross salvage values versus the first and last study year within the band, to the trend analysis end year date.

## Inflation Conversion Factors for Years 1665 to estimated 2014

<p><b>Conversion factors to convert current dollars from years 1665 to estimated 2014 to dollars of CPI (1982-84), 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, estimated 2004, and two special CPI measures</b></p>	<p><b>Suggestion:</b> Use (final) 2003 conversion factors instead of estimated 2004 conversion factors unless 2004 data are necessary. If precise comparison is needed of dollar figures for years starting with 1947, use CPI-U-X1 or CPI-U-RS conversion factors. (See notes at the bottom of the table.)</p>	<p>To convert dollars of any year 1665 to estimated 2014 to dollars of the base year CPI [1982-84], 2003, or other years, DIVIDE that year's dollar amount by the conversion factor (CF) for that base year, rounded to no more than four decimal places (suggestion: prior to 1913 round to 2 decimal places; for 1913 and later round to 3 decimal places).</p>	<p>For example, to convert \$1000 dollars of 1960 to dollars of CPI (1982-84): <math>\\$1000/0.296 = \\$33378</math></p>	<p>Dollars of 1995: <math>\\$1000/0.194=\\$5154</math>; 1996: <math>\\$1000/0.189=\\$5291</math>; 1997: <math>\\$1000/0.184=\\$5435</math></p>	<p>Dollars of 1998: <math>\\$1000/0.182=\\$5494</math>; 1999: <math>\\$1000/0.177=\\$5650</math>; for 2000: <math>\\$1000/0.172=\\$5810</math></p>	<p>Dollars of 2001: <math>\\$1000/0.167=\\$5988</math>; 2002: <math>\\$1000/0.165=\\$6061</math>; CPI-U-X1 (20033); <math>\\$1000/0.179=\\$5587</math></p>
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## Inflation Conversion Factors for Years 1665 to estimated 2014

	Dollars of 2003: \$1000/0.161=\$6211; estimated						
	Dollars of estimated CPI-U-RS (experimental measure): \$1000/0.194=\$5155						
	<b>Note:</b> To reverse the process, for example, to determine what a year 2003-dollar amount would be in dollars of another year, simply multiply the year 2002 amount by the conversion factor of that year. For example, \$1000 2003 dollars would equal in value about \$76 of 1940 ( $\$1000 \times 0.076 = \$76$ ), rounded to 3 or 2 decimal places.						
	Data prior to 1913 are estimates, so it is recommended that dollar figures prior to 1913 be rounded to two significant digits and dollar figures for years 1913 to the present be rounded to three significant digits, so the results above for 1960 can be stated as \$3380, \$5150, and so on, and \$1000 of 1876 in 2003 dollars ( $\$1000/0.061 = \$16,393$ ) be rounded to \$16,000.						
	Two columns provide conversion factors for 2003 for the CPI-U-X1 and CPI-U-RS series. CPI-U-X1 applies the inflation measure introduced in 1983 to the period 1950 to 1982. CPI-U-RS is an experimental series, with 1977 = 100, re-based here to 2003 = 1,000. CPI-U-RS often results in lower measured inflation than either the CPI-U or the CPI-U-X1 series (see inflation-rate columns).						
	NOTE: CPI-U-X1 revised data will be available later in 2004; the CE for that series will be updated then. The data conversion factors are stated so that the conversion year = 1.00 instead of 100.0 to ease CE arithmetic calculations.						
	<b>Reminder:</b> If precise comparisons are needed for the period 1950 (or 1947) through the present, use CPI-U-X1.						

## Inflation Conversion Factors for Years 1665 to estimated 2014

Inflation Assumptions	2004 estimated conversion factors assume 1.5 percent inflation in 2004; 1.6 percent in 2005; 1.9 percent in 2006; 2.15 percent in 2007; 2.3 percent in 2008; 2.35 percent 2009; and 2.2 percent 2010-2014; 2004-2009 are the average of OMB and CBO inflation estimates for each year as of early 2004; 2010-2014 are only from CBO because OMB did not project past 2009 in its 2004 Budget proposals.										
Conversion factors are calculated using two consumer price index years to 1912 using 1082 CPI = 11.54 in 1920 dollars.											
Conversion factors for years 1913 to 2003 use the CPI-U as the base, from the US Bureau of Labor Statistics. Monthly and annual CPI data are available at the BLS website: <a href="http://stats.bls.gov/cpi/home.htm#data&amp;CPI-U = all urban consumers">http://stats.bls.gov/cpi/home.htm#data&amp;CPI-U = all urban consumers</a>											

## Inflation Conversion Factors for Years 1665 to estimated 2014

The conversion factor data used from McCusker and CPI for each year are indicated above each CF column, immediately below.								
Prior to 1913 CPI derived from McCusker, using 1982 CPI = 11.54 in 1860\$								
CPI 1982:84]	Annual CF	Period Inflation Rate	90 Year Annual Growth @ 1.98%	Period	60 Year Annual Growth @ 4.00%	Period	40 Year Annual Growth @ 4.55%	Period
1914	0.100							
1915	0.101	1.000%	1	0.1019				
1916	0.109	7.921%	2	0.1023				
1917	0.128	17.431%	3	0.1104				
1918	0.151	17.969%	4	0.1297				
1919	0.173	14.570%	5	0.1529				
1920	0.200	15.607%	6	0.1752				
1921	0.179	-10.500%	7	0.2026				
1922	0.168	-6.145%	8	0.1813				
1923	0.171	1.786%	9	0.1702				
1924	0.171	0.000%	10	0.1732				
1925	0.175	2.339%	11	0.1732				
1926	0.177	1.143%	12	0.1773				
1927	0.174	-1.695%	13	0.1793				
1928	0.171	-1.724%	14	0.1762				
1929	0.171	0.000%	15	0.1732				
1930	0.167	-2.339%	16	0.1732				
1931	0.152	-8.982%	17	0.1692				
1932	0.137	-9.868%	18	0.1540				
1933	0.130	-5.109%	19	0.1388				
1934	0.134	3.077%	20	0.1317				
1935	0.137	2.239%	21	0.1357				
1936	0.139	1.460%	22	0.1388				
1937	0.144	3.597%	23	0.1408				
1938	0.141	-2.083%	24	0.1459				

## Inflation Conversion Factors for Years 1665 to estimated 2014

CPI [1912=84] CF	Annual Inflation Rate	Period	90 Year Annual Growth @ 1.90%	60 Year Annual Growth @ 4.00%	40 Year Annual Growth @ 4.55%	20 Year Annual Growth @ 2.95%
			Period	Period	Period	Period
1939	0.139	-1.418%	25	0.1428		
1940	0.140	0.719%	26	0.1408		
1941	0.147	5.000%	27	0.1418		
1942	0.163	10.884%	28	0.1489		
1943	0.173	6.135%	29	0.1651		
1944	0.176	1.734%	30	0.1752		
1945	0.180	2.273%	31	0.1783	1	0.1830
1946	0.195	8.333%	32	0.1823	2	0.1904
1947	0.223	14.359%	33	0.1975	3	0.1980
1948	0.241	8.072%	34	0.2259	4	0.2059
1949	0.238	-1.245%	35	0.2441	5	0.2141
1950	0.241	1.261%	36	0.2411	6	0.2227
1951	0.260	7.884%	37	0.2441	7	0.2316
1952	0.265	1.923%	38	0.2634	8	0.2409
1953	0.267	0.755%	39	0.2684	9	0.2505
1954	0.269	0.749%	40	0.2704	10	0.2605
1955	0.268	-0.372%	41	0.2725	11	0.2709
1956	0.272	1.493%	42	0.2715	12	0.2818
1957	0.281	3.309%	43	0.2755	13	0.2931
1958	0.289	2.847%	44	0.2846	14	0.3048
1959	0.291	0.692%	45	0.2927	15	0.3170
1960	0.296	1.718%	46	0.2948	16	0.3296
1961	0.299	1.014%	47	0.2998	17	0.3428
1962	0.302	1.003%	48	0.3029	18	0.3565
1963	0.306	1.325%	49	0.3059	19	0.3708
1964	0.310	1.307%	50	0.3099	20	0.3856
1965	0.315	1.613%	51	0.3140	21	0.4011
1966	0.324	2.857%	52	0.3191	22	0.4171
1967	0.334	3.086%	53	0.3282	23	0.4338
1968	0.348	4.192%	54	0.3383	24	0.4511
1969	0.367	5.460%	55	0.3525	25	0.4692
1970	0.388	5.722%	56	0.3717	26	0.4880
1971	0.405	4.381%	57	0.3930	27	0.5075
1972	0.418	3.210%	58	0.4102	28	0.5278
1973	0.444	6.220%	59	0.4234	29	0.5459

## Inflation Conversion Factors for Years 1665 to estimated 2014

CPI (1912=100) CF	Annual Inflation Rate	Period	90 Year Annual Growth @ 1.90%	Period	60 Year Annual Growth @ 4.00%	Period	40 Year Annual Growth @ 4.55%	Period	20 Year Annual Growth @ 2.95%
			1.90%		4.00%		4.55%		2.95%
1974	0.493	11.036%	60	0.4497	30	0.5708	10	0.4837	
1975	0.538	9.128%	61	0.4994	31	0.5937	11	0.5057	
1976	0.569	5.762%	62	0.5449	32	0.6174	12	0.5287	
1977	0.606	6.503%	63	0.5763	33	0.6421	13	0.5528	
1978	0.652	7.591%	64	0.6138	34	0.6678	14	0.5780	
1979	0.726	11.350%	65	0.6604	35	0.6945	15	0.6043	
1980	0.824	13.499%	66	0.7354	36	0.7223	16	0.6318	
1981	0.909	10.316%	67	0.8346	37	0.7512	17	0.6605	
1982	0.965	6.161%	68	0.9207	38	0.7812	18	0.6905	
1983	0.996	3.212%	69	0.9774	39	0.8125	19	0.7220	
1984	1.039	4.317%	70	1.0088	40	0.8450	20	0.7548	
1985	1.076	3.561%	71	1.0524	41	0.8788	21	0.7892	1
1986	1.096	1.859%	72	1.0899	42	0.9139	22	0.8251	2
1987	1.136	3.650%	73	1.1101	43	0.9505	23	0.8626	3
1988	1.183	4.137%	74	1.1507	44	0.9885	24	0.9019	4
1989	1.240	4.818%	75	1.1983	45	1.0280	25	0.9429	5
1990	1.307	5.403%	76	1.2560	46	1.0692	26	0.9858	6
1991	1.362	4.208%	77	1.3239	47	1.1119	27	1.0306	7
1992	1.403	3.010%	78	1.3796	48	1.1564	28	1.0775	8
1993	1.445	2.994%	79	1.4211	49	1.2027	29	1.1266	9
1994	1.482	2.561%	80	1.4636	50	1.2508	30	1.1778	10
1995	1.524	2.834%	81	1.5011	51	1.3008	31	1.2314	11
1996	1.569	2.953%	82	1.5437	52	1.3528	32	1.2875	12
1997	1.605	2.294%	83	1.5892	53	1.4070	33	1.3460	13
1998	1.630	1.558%	84	1.6257	54	1.4632	34	1.4073	14
1999	1.666	2.209%	85	1.6510	55	1.5218	35	1.4713	15
2000	1.722	3.361%	86	1.6875	56	1.5826	36	1.5383	16
2001	1.771	2.846%	87	1.7442	57	1.6459	37	1.6082	17
2002	1.799	1.581%	88	1.7938	58	1.7118	38	1.6814	18
2003	1.840	2.279%	89	1.8222	59	1.7802	39	1.7579	19
2004	1.868	1.522%	90	1.8637	60	1.8515	40	1.8379	20

## Inflation Conversion Factors for Years 1665 to estimated 2014

CPI 1982-84 CF	Annual Inflation Rate	Period	90 Year Annual Growth @ 1.90%	Period	60 Year Annual Growth @ 4.00%	Period	40 Year Annual Growth @ 4.55%	Period	20 Year Annual Growth @ 2.95%
Revised February 20, 2004, using estimated 2004 inflation of 1.50 percent. Also uses revised (2001) McCusker data. Note: 2003 CPI estimated in February 2003 was 183.9; actual (final) was 184.0, so conversion factors are close to early 2003 estimates.									
Conversion factors for years prior to 1913 are re-based from data in John J. McCusker, "How Much Is That in Real Money?" <i>Proceedings of the American Antiquarian Society</i> (2001), Table A-1, Column 6. (The McCusker data use 1860 as the base year, with 1860 = 1.00. To produce conversion factors for 1665-1912, the McCusker data are re-based, as indicated at the top of each CF column.) McCusker's <i>Offprint How Much Is That in Real Money?</i> , revised 2001 (ISBN 1-929545-01-1) is available from the American Antiquarian Society for \$15 plus shipping and handling through their web site: <a href="http://www.americanantiquarian.org/Offprints/order.htm">http://www.americanantiquarian.org/Offprints/order.htm</a>									
Earlier versions of these conversion factors used pre-1913 CPI data for 1800 to 1912 CPI from <i>Historical Statistics of the United States</i> (USGPO, 1975), Series E 135, Vol 1, pp 210-211 (1967 base) re-based to 1982-84 using 1967 = 0.334 in 1982-84 CPI-U base.									
Data for years prior to 1913 should be considered estimates.									

## Inflation Conversion Factors for Years 1665 to estimated 2014

CPI [1982-84]	Annual Inflation Rate	Period	90 Year Annual Growth @ 1.90%	Period	60 Year Annual Growth @ 4.00%	Period	40 Year Annual Growth @ 4.55%	Period	20 Year Annual Growth @ 2.95%

CPI is CPI-U, the broader measure for all urban consumers, using year-to-year averages, not December to December. When careful comparison of dollar figures for the period since 1950 is required, the CPI-U-RS series or the CPI-U-X1 series should be used, which applies the post-1982 CPI to the period 1950 to 1982.

Conversion factors for the experimental CPI [CPI-U-RS] are supplied for the years 1947 to 2001. It can be used in place of CPI-U-X1 for careful comparison over years starting in 1947. However, there are limits as well as strengths to this experimental measure (see link below for additional information).

Inflation Conversion Factors for Years 1665 to estimated 2014



## Inflation Conversion Factors for Years 1665 to estimated 2014

CPI [1880-84] CF	Annual Inflation Rate	Period	30 Year Annual Growth @ 1.90%	60 Year Annual Growth @ 4.00%	40 Year Annual Growth @ 4.55%	20 Year Annual Growth @ 2.95%
			Period	Period	Period	Period
(3) The CPI is changed periodically, so data for the entire series are not precisely comparable. See the discussion in <i>Historical Statistics</i> , Volume I, pages 190 to 192. The major CPI change in 1983 effectively reduced the measured CPI by changing the way home ownership costs are measured. To apply the CPI used starting 1983 to years 1950 to 1982, use the CPI-U-X1 series, as shown above, from <i>The Economic Report of the President 2004</i> Tables B-60 to B-62, and tables in earlier editions of <i>Economic Report of the President</i> . By definition, CPI-U-X1 is the same as CPI starting 1983.						
(4) All CPI conversion factors are based on year-to-year averages, not December to December changes.						
Detailed explanations of the CPI are available at the Bureau of Labor Statistics CPI web site: <a href="http://stats.bls.gov/cpihome.htm">http://stats.bls.gov/cpihome.htm</a> Discussion of the CPI-U-RS and its strengths and limits can be found at <a href="http://www.bls.gov/cpicpifrsdc.htm">www.bls.gov/cpicpifrsdc.htm</a> and at the Census Bureau site, <a href="http://www.census.gov/hhes/income/income00/cpiurstr.htm">http://www.census.gov/hhes/income/income00/cpiurstr.htm</a> . The CPI-U-RS data are from the Census Bureau, which uses the Bureau of Labor Statistics' experimental Consumer Price Index (CPI-U-RS) starting 1977. The Census Bureau derived the CPI-U-RS for years before 1977 by applying the 1977 CPI-U-RS-to-CPI-U ratio to the 1947 to 1976 CPI-U. The 1978 through 2003 CPI-U-RS data are from <i>Economic Report of the President 2004</i> Table B-62.						
Revised 2/20/2004 Response to Accompany DTE-11-15-Inflation_Rates.xls						

## Inflation Conversion Factors for Years 1665 to estimated 2014

Revised 2/20/2004  
Response to Accor

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*states.xls*

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- DTE-11-16 Refer to Exh. BSG/EMR-2, at 2-1 and 2-2. Provide the documents included in this exhibit with the "Present Rate" categories broken out into the following three subcategories: Present Plant Only Rates, Present Gross Salvage Rates and Present COR Rates.

Response:

The present depreciation rates were prepared (in conjunction with the preparation of the December 31, 1998 depreciation study analysis) in total only and no such detail was required when the present depreciation rates were developed. Accordingly, the requested separation of the present depreciation rates into the three categories is not available.

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- DTE-11-18 Refer to Exh. BSG/EMR-2, at 2-1 and 2-2. Provide these documents with the "Present Rates" column broken out into the same four sub-categories as the "Proposed Rates" column.

Response:

The present depreciation rates were prepared (in conjunction with the preparation of the December 31, 1998 depreciation study analysis) in total only and no such detail was required when the present depreciation rates were developed. Accordingly, the requested separation of the present depreciation rates into the three categories is not available.

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Responsible: Earl M. Robinson

- DTE-11-19 Refer to Exh. BSG/EMR-2, Section 2. Please provide these documents in electronic spreadsheet format. Include all formulas and calculations used in deriving these documents.

Response:

Please refer to the response provided for AG-5-5.

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- DTE-11-20 Refer to Exh. BSG/EMR-2, Section 2, at 4-247. Please explain why, for Account 311(L.P. Gas Equipment), the proposed plant only rate of 1.56% was added to the proposed gross salvage rate of 0.29% in determining the proposed 1.85% depreciation rate for this account.

Response:

As a result of recent requirements for the Company to provide information relative to the non-ARO cost of removal to the SEC, the Company's book depreciation reserve has been segmented into the various recovery components, and for going forward purposes the annual depreciation rates have equally been segmented into three components, namely Plant Only, Gross Salvage, and Cost of Removal recovery.

Table 1 in Section 2 of the depreciation study report, therefore, is simply the summation of the depreciation rates for each of the recovery components to arrive at the total depreciation rate, which is then compared to the present depreciation rate.

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- DTE-11-41 Refer to Exh. BSG/JES-1, at 38. Of the Company's \$4,674,251 proposed increase in depreciation expense, how much of this amount is attributable to changes in average service lives and how much of this amount is attributable to revisions in net salvage? Please show the answer in both dollar value and percentage as it relates to the Company's entire depreciation adjustment.

Response:

The requested information is contained on the Excel worksheet accompanying this response.

Table 1-Comparison

**Bay State Gas Company**

**Summary of Original Cost of Utility Plant in Service as of December 31, 2003  
and Related Annual Depreciation Expense Under Present and Proposed Rates**

Account No. (a)	Description (b)	Present Rates						Proposed Rates						Service Life Impact			Net Salvage Impact		
		Original Cost 12/31/03 (c)		Service Life Dep. Rates Annual Accrual (d)		Net Salvage Dep. Rates Annual Accrual (e)		Service Life Dep. Rates Annual Accrual (f)		Net Salvage Dep. Rates Annual Accrual (g)		Annual Accrual (h)		Annual Accrual (i)		Net Change Amount (n)	Net Change Dep. Exp. Amount (n)	% Change % Change (n)	
	<b>DEPRECIABLE PLANT</b>																		
	<b>Production Equipment</b>																		
305	Structures & Improvements	2,298,907	2.38%	54,254.20	0.32%	-7,356.50	2.89%	66,438.41	0.17%	3,908.14	12,184.21	22.5%	-3,448.36	-46.9%					
311	L.P. Gas Equipment	4,193,152	3.70%	155,146.62	-0.74%	-31,059.32	1.55%	65,413.17	0.29%	12,160.14	-89,733.45	-57.8%	43,189.46	-139.2%					
320	Other Equipment	835,037	5.07%	42,336.40	0.00%	0.00	7.46%	62,293.80	0.00%	0.00	19,957.40	47.1%	0.00	N/A					
321	LNG Equipment	16,536,014	3.92%	648,211.75	0.00%	0.00	3.61%	596,950.11	0.00%	0.00	-51,261.64	-7.9%	0.00	N/A					
	<b>TOTAL Production Equipment</b>	<b>23,863,410</b>	<b>3.77%</b>	<b>899,948.97</b>	<b>-0.10%</b>	<b>-23,672.82</b>	<b>3.32%</b>	<b>791,095.49</b>	<b>0.07%</b>	<b>16,068.28</b>	<b>-108,853.48</b>	<b>-12.1%</b>	<b>39,741.10</b>	<b>-167.9%</b>					
	<b>Transmission and Distribution Plant</b>																		
374	(365) Rights of Way	79,051	2.18%	1,723.32	0.00%	0.00	2.18%	1,723.32	0.00%	0.00	0.00	0.0%	0.00	0.00	0.00	0.00	0.00	N/A	
375.2	(366) Structures & Improvement	2,108,612	2.58%	54,402.19	0.42%	8,856.17	2.97%	62,655.78	0.13%	2,741.20	8,223.59	15.1%	-6,114.97	-69.0%					
	<b>Total Account 376 (367)</b>	<b>295,736,340</b>	<b>1.63%</b>	<b>4,827,452.68</b>	<b>0.23%</b>	<b>667,519.70</b>	<b>2.39%</b>	<b>7,082,568.43</b>	<b>0.39%</b>	<b>1,161,944.73</b>	<b>2,255,115.75</b>	<b>46.7%</b>	<b>494,425.03</b>	<b>74.1%</b>					
	<b>Mains</b>																		
376.1	(367.1) Cast Iron	5,710,347	1.52%	86,787.27	0.28%	15,988.97	2.10%	119,917.29	0.31%	17,702.08	33,120.02	38.2%	1,713.11	10.7%					
376.2	(367.2) Steel Mains - Coated/Wrapped	143,919,755	1.08%	1,554,333.03	0.16%	230,271.56	2.15%	3,094,274.08	0.38%	546,894.95	1,539,941.05	99.1%	316,623.39	137.5%					
376.3	(367.3) Steel Mains - Bare	2,564,953	2.85%	73,162.01	0.70%	17,954.88	4.18%	107,216.28	0.56%	14,363.90	34,114.27	46.7%	-3,590.98	-20.0%					
376.4	(367.4) Plastic Mains	116,579,215	1.67%	1,946,872.90	0.19%	221,500.51	1.88%	2,191,659.25	0.29%	38,079.72	244,616.35	62.6%	116,579.21	52.6%					
376.5	(367.5) Joint Seals	19,580,594	4.69%	918,329.86	0.74%	144,856.40	5.55%	1,086,722.97	0.87%	170,351.17	168,393.11	18.3%	25,454.77	17.6%					
376.6	(367.6) Cathodic Protection	7,381,476	3.36%	248,017.61	0.50%	36,907.38	6.54%	482,748.56	1.01%	74,552.91	234,730.95	94.6%	37,645.53	102.0%					
	<b>Total Account 376 (367)</b>	<b>327,285</b>	<b>2.93%</b>	<b>9,568.87</b>	<b>0.00%</b>	<b>0.00</b>	<b>5.14%</b>	<b>16,821.42</b>	<b>0.00%</b>	<b>0.00</b>	<b>7,232.55</b>	<b>75.4%</b>	<b>0.00</b>	<b>7,232.55</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>N/A</b>	
394.1	(368) Compressor Station Equipment	11,275,919	2.49%	280,770.39	0.18%	20,296.65	2.58%	290,918.72	0.13%	14,653.70	10,148.33	3.6%	-5,637.95	-27.8%					
378	(369) Meas. & Reg. Station Equip.	510,252	2.64%	13,470.64	0.00%	0.00	2.64%	13,470.64	0.00%	0.00	0.00	0.0%	0.00	0.00	0.00	0.00	0.00	N/A	
379	Other Equipment																		
	<b>Services</b>																		
380.2	Steel - Coated/Wrapped	55,850,176	-0.23%	-128,455.41	4.18%	2,334,537.37	1.37%	765,147.41	3.35%	1,870,980.91	893,602.82	-69.7%	-463,556.46	-19.9%					
380.3	Steel - Bare	543,808	-7.95%	-43,232.76	15.90%	86,465.49	6.30%	34,259.91	5.74%	31,214.59	77,492.66	-179.2%	-55,250.90	-63.9%					
380.4	Plastic	160,471,566	1.45%	2,326,837.71	3.09%	4,958,571.39	1.98%	3,177,337.01	3.20%	5,135,090.11	850,499.30	36.6%	176,518.72	3.6%					
380.5	Copper	167,745	-4.21%	-7,052.05	6.80%	11,406.63	0.04%	67.10	4.00%	6,709.78	7,129.15	-101.0%	-4,696.85	-41.2%					
	<b>Total Account 380</b>	<b>217,033,295</b>	<b>0.99%</b>	<b>2,148,087.51</b>	<b>3.41%</b>	<b>7,390,980.89</b>	<b>1.83%</b>	<b>3,976,811.43</b>	<b>3.25%</b>	<b>7,043,995.39</b>	<b>1,828,723.92</b>	<b>85.1%</b>	<b>-346,985.50</b>	<b>-4.7%</b>					
	<b>Meters</b>																		
381	Meters	24,527,066	3.83%	939,386.61	-0.31%	-76,033.90	3.94%	966,366.38	0.02%	4,905.41	26,979.77	2.9%	80,939.31	-106.5%					
382	Meter Installations	42,380,403	1.58%	669,610.37	0.40%	169,521.61	1.97%	834,893.95	1.37%	560,611.53	165,283.58	24.7%	411,089.92	242.5%					
383	House Regulators	13,562,020	3.31%	448,902.85	0.00%	0.00	3.51%	476,026.89	0.55%	74,591.11	27,124.04	6.0%	74,591.11	N/A					
384.3	(387) Other Equipment	1,814,797	10.38%	188,375.94	0.00%	0.00	14.91%	270,586.25	0.00%	0.00	82,210.31	43.6%		0.00					
	<b>TOTAL Trans. &amp; Distr. Plant</b>	<b>609,355,021</b>	<b>1.57%</b>	<b>9,581,771.38</b>	<b>1.34%</b>	<b>8,181,141.12</b>	<b>2.30%</b>	<b>13,992,813.21</b>	<b>1.46%</b>	<b>8,893,448.07</b>	<b>4,411,041.83</b>	<b>45.0%</b>	<b>702,306.95</b>	<b>8.6%</b>					
	<b>General Plant</b>																		
375.7	(390) Structures & Improvements	6,939,631	2.22%	154,059.81	-0.10%	-6,939.63	2.16%	149,896.03	-0.06%	-4,163.78	-4,163.78	-2.7%	2,775.85	N/A					

Table 1-Comparison

Bay State Gas Company

**Summary of Original Cost of Utility Plant in Service as of December 31, 2003  
and Related Annual Depreciation Expense Under Present and Proposed Rates**

Table 2 - With Net Salvage

**Bay State Gas Company**

**Summary of Original Cost of Utility Plant in Service and Calculation of Annual Depreciation Rates and Depreciation Expense Based Upon Utilization of Book Depreciation Reserve and Average Remaining Lives as of December 31, 2003 (Using Present Depreciation Rate Parameters)**

Account No. (a)	Description (b)	Original Cost 12/31/023 (c)	Estimated Future Net Salvage % (d)	Original Cost Less Salvage (e)		Book Reserve (g)	Net Original Cost Less Salvage (h)	A.S.L./ Survivor Curve (i)	Average Remaining Life (j)	Annual Depreciation Accrual (k)	Annual Depreciation Rate (l)
				Original Cost 835,037.49 16,536,014.07 23,863,110.25	Net Salvage Amount 0% 0% 0%						
<b>DEPRECIABLE PLANT</b>											
305	Production Equipment	2,288,906.89	-5%	-114,945.34	2,413,852.23	1,463,911.82	949,940.41 (1)	55-S1.5	15.4	61,684.44	2.68%
311	Structures & Improvements	4,193,151.80	5%	209,657.59	3,983,494.21	3,153,263.56	830,230.65	30-R4	6.7	123,915.02	2.96%
320	L.P. Gas Equipment	835,037.49	0%	0.00	835,037.49	280,691.71	554,345.78	24-R3	13.1	42,316.47	5.07%
321	Other Equipment	16,536,014.07	0%	0.00	16,536,014.07	4,483,146.57	12,052,857.50	25-R3	18.6	648,003.63	3.92%
	<b>TOTAL Production Equipment</b>	<b>23,863,110.25</b>	<b>0%</b>	<b>94,712.25</b>	<b>23,768,398.00</b>	<b>9,381,013.66</b>	<b>14,387,384.34</b>			<b>875,919.57</b>	<b>3.67%</b>
	<b>Transmission and Distribution Plant</b>										
374	(365) Rights of Way	79,051.37	0%	0.00	79,051.37	0.00	79,051.37	75-R3	45.9	1,722.25	2.18%
375.2	(366) Structures & Improvement	2,108,612.14	-5%	-105,430.61	2,214,042.75	1,461,441.60	752,601.15 (1)	55-R3	11.9	63,243.79	3.00%
	<b>Mains</b>										
376.1	(367.1) Cast Iron	5,710,347.02	-10%	-571,034.70	6,281,381.72	2,544,863.66	3,736,518.06	90-R3	36.4	102,651.60	1.80%
376.2	(367.2) Steel Mains - Coated/Wrapped	143,919,724.75	-10%	-14,391,972.48	158,311,697.23	45,310,714.67	113,000,982.56	85-R3	63.3	1,785,165.60	1.24%
376.3	(367.3) Steel Mains - Bare	2,564,982.88	-10%	-256,498.29	2,821,481.17	1,528,719.76	1,292,761.41	70-R4	14.2	91,039.54	3.55%
376.4	(367.4) Plastic Mains	116,579,215.34	-10%	-11,657,921.53	128,237,136.87	16,611,784.81	111,625,352.06	60-R3	51.4	2,171,699.46	1.86%
376.5	(367.5) Joint Seals	19,580,594.04	-10%	-1,958,059.40	21,538,653.44	7,176,492.31	14,362,161.13	24-R4	13.5	1,063,863.79	5.43%
376.6	(367.6) Cathodic Protection	7,381,476.44	-10%	-738,147.64	8,119,624.08	2,415,227.48	5,704,396.60	20-R5	20.0	285,219.83	3.86%
	<b>Total Account 376 (367)</b>	<b>295,736,340.47</b>	<b>-10%</b>	<b>-29,573,634.04</b>	<b>325,309,974.51</b>	<b>75,587,802.69</b>	<b>249,722,171.82</b>			<b>5,499,639.81</b>	<b>1.86%</b>
	<b>Services</b>										
394.1	(368) Compressor Station Equipment	327,265.05	0%	0.00	327,265.05	238,059.12	89,205.93	26-R2	9.3	9,592.04	2.93%
378	(369) Meas. & Reg. Station Equip.	11,275,919.37	-5%	-563,795.97	11,839,715.34	3,330,869.17	8,508,846.17	39-R3	28.3	300,665.94	2.67%
379	Other Equipment	510,251.60	0%	0.00	510,251.60	209,902.34	300,349.26	35-R3	22.3	13,468.58	2.64%
	<b>Total Account 380</b>	<b>217,033,295.05</b>	<b>-140%</b>	<b>-303,846,613.08</b>	<b>520,879,908.13</b>	<b>116,087,787.27</b>	<b>404,792,120.86</b>			<b>9,531,751.01</b>	<b>4.39%</b>

Table 2 - With Net Salvage

Bay State Gas Company

**Summary of Original Cost of Utility Plant in Service and Calculation of Annual Depreciation Rates and Depreciation Expense Based Upon Utilization of Rock Depreciation Reserve and Average Remaining Lives as of December 31, 2000**

## Using Present Depreciation Rate Parameters

Table 2 - With Net Salvage

**Bay State Gas Company**

**Summary of Original Cost of Utility Plant in Service and Calculation of Annual Depreciation Rates and Depreciation Expense Based Upon Utilization of Book Depreciation Reserve and Average Remaining Lives as of December 31, 2003**

**(Using Present Depreciation Rate Parameters)**

Account No. (a)	Description (b)	Original Cost (c)	Estimated Future Net Salvage (d)	% (e)	Original Cost Less Salvage (f)	Book Depreciation Reserve (g)	Net Original Cost Less Salvage (h)	A.S.L./ Survivor Curve (i)	Average Remaining Life (j)	Annual Depreciation Accrual (k)	Annual Depreciation Rate (l)
386.0	Water Heaters	11,496,963.72									
386.2	Boilers	569,752.00									
386.3	Conversion Burners	7,727,861.00									
	TOTAL Depreciable Plant	689,549,951.16									
	<b>NON-DEPRECIABLE PLANT</b>										
301	Organization	4,432,918.56									
303	Miscellaneous Intangible Plant	478,038,238.89									
304	Land & Land Rights - Production	412,591.77									
374.1	(365.1) Land & Land Rights - Distribution	219,040.69									
389	Land & Land Rights - General	172,320.91									
	TOTAL Non-Depreciable Plant	483,275,110.82									
	TOTAL Utility Plant in Service	# #####									

(1) Life Span Method Utilized. Interim Retirement Rate. Service Lives Vary.

Table 2 - W/O Net Salvage

Bay State Gas Company

**Summary of Original Cost of Utility Plant in Service and Calculation of Annual Depreciation Rates and Depreciation Expense Based Upon Utilization of Book Depreciation Reserve and Average Remaining Lives as of December 31, 2003**

Table 2 - W/O Net Salvage

Bay State Gas Company

**Summary of Original Cost of Utility Plant in Service and Calculation of Annual Depreciation Rates and Depreciation Expense Based Upon Utilization of Book Depreciation Reserve and Average Remaining Lives as of December 31, 2003**

## (Using Present Depreciation Rate Parameters)

Table 2 - W/O Net Salvage

**Bay State Gas Company**

**Summary of Original Cost of Utility Plant in Service and Calculation of Annual Depreciation Rates and Depreciation Expense Based Upon Utilization of Book Depreciation Reserve and Average Remaining Lives as of December 31, 2003**

<b>(Using Present Depreciation Rate Parameters)</b>									
Account No. (a)	Description (b)	Original Cost 12/31/023 (c)	Estimated Future Net Salvage % (d)	Original Cost Less Amount (e)	Book Depreciation Salvage (f)	Book Depreciation Reserve (g)	Net Original Cost Less Salvage (h)	A.S.L./ Survivor Curve (i)	Annual Depreciation Accrued (k)
<b>NON-DEPRECIABLE PLANT</b>									
301	Organization	4,432,918.56							
303	Miscellaneous Intangible Plant	478,038,238.89							
304	Land & Land Rights - Production	412,591.77							
374,1	(365,1) Land & Land Rights - Distribution	219,040.69							
389	Land & Land Rights - General	172,320.91							
	TOTAL Non-Depreciable Plant	483,275,110.82							
	TOTAL Utility Plant in Service	1,172,825,061.98							

(1) Life Span Method Utilized. Interim Retirement Rate. Service Lives Vary.

Table 1a

Bay State Gas Company

Calculation of Cost of Removal In Book Depreciation Reserve as of December 31, 2003 Based Upon Theoretical Depreciation Reserves (By Location and Account) Using Existing Depreciation Parameters

Account No. (a)	Description (b)	Historical						Gross Salvage In Book Res. (l)	Plant Only Depr Reserve 12/31/03 (k)			
		Original Cost 12/31/03 (c)	A.S.L./ Curve (d)	Net Salvage % (e)	Total Book Depr Reserve 12/31/03 (h)	Cost of Removal In Book Res. (i)						
<b>DEPRECIABLE PLANT</b>												
<b>Production Equipment</b>												
305	Structures & Improvements	2,298,906.89	55-S1.5 (1)	-5%	1,463,911.82	62,877.01	0.00	1,401,034.81				
311	L.P. Gas Equipment	4,193,151.80	30-R4	5%	3,153,263.56	0.00	(162,863.47)	3,316,127.03				
320	Other Equipment	835,037.49	24-R3	0%	280,691.71	0.00	0.00	280,691.71				
321	LNG Equipment	16,536,014.07	25-R3	0%	4,483,146.57	0.00	0.00	4,483,146.57				
	TOTAL Production Equipment	23,863,110.25			9,381,013.66	62,877.01	-162,863.47	9,481,000.12				
<b>Transmission and Distribution Plant</b>												
374	(365) Rights of Way	79,051.37	75-R3	0%	0.00	0.00	0.00	0.00				
375.2	(366) Structures & Improvement	2,108,612.14	55-R3 (1)	-5%	1,461,441.60	73,624.32	0.00	1,387,817.28				
<b>Mains</b>												
376.1	(367.1) Cast Iron	5,710,347.02	90-R3	-10%	2,544,863.66	339,912.07	0.00	2,204,951.59				
376.2	(367.2) Steel Mains - Coated/Wrapped	143,919,724.75	85-R3	-10%	45,310,714.67	3,673,970.26	0.00	41,636,744.41				
376.3	(367.3) Steel Mains - Bare	2,564,982.88	70-R4	-10%	1,528,719.76	217,586.97	0.00	1,311,132.79				
376.4	(367.4) Plastic Mains	116,579,215.34	60-R3	-10%	16,611,784.81	1,654,305.80	0.00	14,957,479.01				
376.5	(367.5) Joint Seals	19,580,594.04	24-R4	-10%	7,176,492.31	854,222.55	0.00	6,322,269.76				
376.6	(367.6) Cathodic Protection	7,381,476.44	20-R5	-10%	2,415,227.48	296,832.55	0.00	2,118,394.93				
	Total Account 376 (367)	295,736,340.47			75,587,802.69	7,036,830.20	0.00	68,550,972.49				
394.1	(368) Compressor Station Equipment	327,265.05	26-R2	0%	238,059.12	0.00	0.00	238,059.12				
378	(369) Meas. & Reg. Station Equip.	11,275,919.37	39-R3	-5%	3,330,869.17	154,597.34	0.00	3,176,271.83				
379	Other Equipment	510,251.60	35-R3	0%	209,902.34	0.00	0.00	209,902.34				
<b>Services</b>												
380.2	Steel - Coated/Wrapped	55,850,176.27	55-R3	-140%	60,119,215.56	30,606,557.19	0.00	29,512,658.37				
380.3	Steel - Bare	543,808.14	60-R4	-140%	924,473.84	665,171.65	0.00	259,302.19				
380.4	Plastic	160,471,566.05	55-R3	-140%	54,730,866.37	39,013,709.35	0.00	15,717,157.02				
380.5	Copper	167,744.59	55-R3	-140%	313,231.50	146,847.64	0.00	166,383.86				
	Total Account 380	217,033,295.05			116,087,787.27	70,432,285.83	0.00	45,655,501.44				
381	Meters	24,527,065.54	29-R5	5%	9,486,755.98	0.00	(545,982.53)	10,032,738.51				
382	Meter Installations	42,380,403.42	60-R2.5	-20%	9,736,768.97	1,562,526.81	0.00	8,174,242.16				
383	House Regulators	13,562,019.77	32-R5	0%	4,955,322.40	0.00	0.00	4,955,322.40				
394.3	(387) Other Equipment	1,814,797.11	13-L3	0%	515,594.73	16,919.29	(16,919.28)	515,594.72				
	TOTAL Trans. & Distr. Plant	609,355,020.89			221,610,304.27	79,276,783.79	-562,901.81	142,896,422.29				
<b>General Plant</b>												
375.7	(390) Structures & Improvements	6,939,631.18	90-R1 (1)	3%	1,941,038.72	50,348.17	(125,870.43)	2,016,560.98				
<b>Office Furniture &amp; Equipment</b>												
391.1	Office Furniture & Equipment	3,749,589.10	10-R3	0%	3,089,806.00	0.00	0.00	3,089,806.00				
391.2	Computer & IT Equipment	7,481,692.89	6-R4	0%	3,222,916.13	0.00	0.00	3,222,916.13				
	Total Account 391	11,231,281.99			6,312,722.13	0.00	0.00	6,312,722.13				
392	Transportation Equipment	2,638,835.77	10-R3	10%	1,329,581.50	0.00	(183,612.29)	1,513,193.79				
393	Stores Equipment	50,472.55	23-R3	0%	-5,950.26	0.00	0.00	-5,950.26				
394	Tools, Shop & Garage Equipment	1,709,378.09	17-R3	0%	743,755.51	0.00	0.00	743,755.51				
396	Power Operated Equipment	489,502.88	13-R3	5%	222,782.71	0.00	(16,344.40)	239,127.11				
<b>Communication Equipment</b>												
397.1	Communication Equipment	7,033,594.41	20-R3	0%	2,254,128.19	0.00	0.00	2,254,128.19				
397.2	Metscan Meter Interface Units	6,419,326.08	10-S3	0%	833,935.34	0.00	0.00	833,935.34				
	Total Account 397	13,452,920.49			3,088,063.53	0.00	0.00	3,088,063.53				
398	Miscellaneous Equipment	25,220.35	18-L1.5	0%	12,366.29	0.00	0.00	12,366.29				
	TOTAL General Plant	36,537,243.30			13,644,360.13	50,348.17	-325,827.12	13,919,839.08				
	Sub-TOTAL Depreciable Plant	669,755,374.44			244,635,678.06	79,390,008.97	-1,051,592.40	166,297,261.49				

Table 1a

**Bay State Gas Company**

**Calculation of Cost of Removal In Book Depreciation Reserve as of December 31, 2003 Based Upon Theoretical Depreciation Reserves (By Location and Account) Using Existing Depreciation Parameters**

Account <u>No.</u> (a)	Description (b)	Original Cost 12/31/03 (c)	<u>Historical</u>			Total Book Depr Reserve 12/31/03 (h)	Cost of Removal In Book Res. (i)	Gross Salvage In Book Res. (j)	Plant Only Depr Reserve 12/31/03 (k)
			A.S.L./ Curve (d)	Net Salvage % (e)	Total Book Depr Reserve 12/31/03 (h)				
<b>AMORTIZATION ACCOUNTS (Not Studied)</b>									
386.0	Water Heaters	11,496,963.72			1,933,967.50				
386.2	Boilers	569,752.00			1,120,110.07				
386.3	Conversion Burners	7,727,861.00			403,724.49				
	TOTAL Depreciable Plant	689,549,951.16			248,093,480.12	79,390,008.97	-1,051,592.40	166,297,261.49	
<b>NON-DEPRECIABLE PLANT</b>									
301	Organization	4,432,918.56			3,312,989.01				
303	Miscellaneous Intangible Plant	478,038,238.89			71,921,999.93				
304	Land & Land Rights - Production	412,591.77			0.00				
374.1	(365.1) Land & Land Rights - Distribution	219,040.69			0.00				
389	Land & Land Rights - General	172,320.91			0.00				
	TOTAL Non-Depreciable Plant	483,275,110.82			75,234,988.94	0.00	0.00	0.00	
	TOTAL Utility Plant in Service	1,172,825,061.98			323,328,469.06	79,390,008.97	-1,051,592.40	166,297,261.49	

(1) Life Span Method Utilized. Interim Retirement Rate. Service Lives Vary.

<u>Summary</u>	<u>% of Depr Reserve</u>
Total: Depr. Book Depr Reserve 12-31-03	248,093,480.12
Less: Account 386.2	<u>3,457,802.06</u>
<b>Total Book Depr Resr. 12-31-03 (Net of 386.2)</b>	<b>244,635,678.06</b>
Plant Only Depr Reserve 12-31-03	166,297,261.49
Gross Salvage Depr Reserve 12-31-03	-1,051,592.40
Cost of Removal Depr Reserve 12-31-03	79,390,008.97

Table 2 - Plant Only

Bay State Gas Company

**Summary of Original Cost of Utility Plant in Service and Calculation of Annual Depreciation Rates and Depreciation Expense Based Upon Utilization of Book Depreciation Reserve and Average Remaining Lives as of December 31, 2003**

Account No. (a)	Description (b)	Original Cost 12/31/023 (c)	Estimated Future Net Salvage (d)	Original Cost Less Salvage (e)	Book Depreciation Reserve (g)	Net Original Cost Less Salvage (h)	A.S.L./ Survivor Curve (i)	Average Remaining Life (j)	Annual Depreciation Accrual (k)	Annual Depreciation Rate (l)
<b>DEPRECIALE PLANT</b>										
305	Production Equipment	2,298,906.89	0%	0.00	2,298,906.89	1,401,034.81	897,872.08 (1)	42-L3	13.5	66,509.04
311	Structures & Improvements	4,193,151.80	0%	0.00	4,193,151.80	3,316,127.03	877,024.77	36-R2.5	13.4	65,449.61
320	L.P. Gas Equipment	835,037.49	0%	0.00	835,037.49	280,691.71	554,345.78	20-R4	8.9	62,286.04
321	Other Equipment	16,536,014.07	0%	0.00	16,536,014.07	4,483,146.57	12,052,367.50	27-R4	20.2	596,676.61
	<b>TOTAL Production Equipment</b>	<b>23,863,110.25</b>	<b>0%</b>	<b>0.00</b>	<b>23,863,110.25</b>	<b>9,481,000.12</b>	<b>14,382,110.13</b>			<b>790,921.30</b>
	<b>Transmission and Distribution Plant</b>									
374	(365) Rights of Way	79,051.37	0%	0.00	79,051.37	0.00	79,051.37	75-R3	45.9	1,722.25
375.2	(366) Structures & Improvement	2,108,612.14	0%	0.00	2,108,612.14	1,387,817.28	720,794.86 (1)	54-L3	11.5	62,677.81
	<b>Mains</b>									
376.1	(367.1) Cast Iron	5,710,347.02	0%	0.00	5,710,347.02	2,204,951.59	3,505,395.43	75-R2	29.3	119,638.07
376.2	(367.2) Steel Mains - Coated/Wrapped	143,919,724.75	0%	0.00	143,919,724.75	41,636,744.41	102,282,380.34	55-R4	33.0	3,099,484.25
376.3	(367.3) Steel Mains - Bare	2,564,982.88	0%	0.00	2,564,982.88	1,311,132.79	1,253,850.09	74-R3	11.7	107,166.67
376.4	(367.4) Plastic Mains	116,579,215.34	0%	0.00	116,579,215.34	14,957,479.01	101,621,736.33	55-S2	46.3	2,194,853.92
376.5	(367.5) Joint Seals	19,580,594.04	0%	0.00	19,580,594.04	6,322,269.76	13,258,324.28	23-R5	12.2	1,086,747.89
376.6	(367.6) Cathodic Protection	7,381,476.44	0%	0.00	7,381,476.44	2,118,394.93	5,263,081.51	19-S5	10.9	482,851.51
	<b>Total Account 376 (367)</b>	<b>295,736,340.47</b>	<b>0%</b>	<b>0.00</b>	<b>295,736,340.47</b>	<b>68,550,972.49</b>	<b>227,185,367.98</b>			<b>7,090,742.32</b>
	<b>Services</b>									
394.1	(368) Compressor Station Equipment	327,265.05	0%	0.00	327,265.05	238,059.12	89,205.93	22-R2.5	5.3	16,831.31
378	(369) Meas. & Reg. Station Equip.	11,275,919.37	0%	0.00	11,275,919.37	3,176,271.83	8,099,647.54	39-R4	27.8	291,354.23
379	Other Equipment	510,251.60	0%	0.00	510,251.60	209,902.34	300,349.26	35-R3	22.3	13,498.58
	<b>Total Account 380</b>									
380.2	Steel - Coated/Wrapped	55,850,176.27	0%	0.00	55,850,176.27	29,512,658.37	26,337,517.90	56-R3	34.4	765,625.52
380.3	Steel - Bare	543,808.14	0%	0.00	543,808.14	259,302.19	284,505.95	60-R4	8.3	34,277.83
380.4	Plastic	160,471,566.05	0%	0.00	160,471,566.05	15,771,157.02	144,754,409.03	55-R3	45.5	3,181,415.58
380.5	Copper	167,744.59	0%	0.00	167,744.59	166,383.86	1,360,73	55-R3	20.6	66.05
	<b>Total Account 380</b>									
381	Meters	24,527,065.54	0%	0.00	24,527,065.54	10,032,738.51	14,494,327.03	28-S6	15.0	966,288.47
382	Meier Installations	42,380,403.42	0%	0.00	42,380,403.42	8,174,242.16	34,206,161.26	53-S3	41.0	8,436,296.62
383	House Regulators	13,562,019.77	0%	0.00	13,562,019.77	4,955,322.40	8,606,697.37	31-S6	18.1	4,755,508.14

394.3	(387) Other Equipment	1,814,797.11	0%	0.00	1,814,797.11	515,594.72	1,299,202.39	11-L4	4.8	270,667.16	14.91%
	TOTAL Trans. & Distr. Plant	609,355,020.89	0%	0.00	609,355,020.89	142,896,422.29	466,458,598.60			14,004,941.87	2.30%
375.7	(390) Structures & Improvements	6,939,631.18	0%	0.00	6,939,631.18	2,016,560.98	4,923,070.20	(1)	90-R1.5	32.9	149,637.39
	<b>General Plant</b>										2.16%
	<b>Office Furniture &amp; Equipment</b>										
391.1	Office Furniture & Equipment	3,749,589.10	0%	0.00	3,749,589.10	3,089,806.00	659,783.10	9-L3	3.7	178,319.76	4.76%
391.2	Computer & IT Equipment	7,481,692.89	0%	0.00	7,481,692.89	3,222,916.13	4,258,776.76	7-R4	2.8	1,520,991.70	20.33%
	Total Account 391	11,231,281.99	0%	0.00	11,231,281.99	6,312,722.13	4,918,599.86			1,699,311.46	15.13%
392	Transportation Equipment	2,638,835.77	0%	0.00	2,638,835.77	1,513,193.79	1,125,611.98	10-R3	3.0	375,213.99	14.22%
393	Stores Equipment	50,472.55	0%	0.00	50,472.55	-5,950.26	56,422.81	19-R3	9.8	5,737.43	11.41%
394	Tools, Shop & Garage Equipment	1,709,378.09	0%	0.00	1,709,378.09	743,755.51	965,622.58	21-R3	12.8	75,459.26	4.41%
396	Power Operated Equipment	489,502.88	0%	0.00	489,502.88	239,127.11	250,375.77	13-R3	4.3	58,226.92	11.90%
	<b>Communication Equipment</b>										
397.1	Communication Equipment	7,033,594.41	0%	0.00	7,033,594.41	2,254,128.19	4,779,466.22	17-R2	10.0	477,946.62	6.80%
397.2	Metscan Meter Interface Units	6,419,326.08	0%	0.00	6,419,326.08	833,935.34	5,585,390.74	9-R5	3.6	1,551,497.43	24.17%
	Total Account 397	13,452,920.49	0%	0.00	13,452,920.49	3,088,063.53	10,364,856.96			2,029,444.05	15.09%
398	Miscellaneous Equipment	25,220.35	0%	0.00	25,220.35	12,366.29	12,854.06	18-L1.5	10.2	1,260.20	5.00%
	TOTAL General Plant	36,537,243.30	0%	0.00	36,537,243.30	13,919,839.08	22,617,404.22			4,394,280.71	12.03%
	Sub-TOTAL Depreciable Plant	669,755,374.44	0%	0.00	669,755,374.44	166,297,261.49	503,458,112.95			19,190,153.89	2.87%
	<b>AMORTIZATION ACCOUNTS (Not Studied)</b>										
386.0	Water Heaters	11,496,963.72									
386.2	Boilers	569,752.00									
386.3	Conversion Burners	7,727,861.00									
	TOTAL Depreciable Plant	689,549,951.16									
	<b>NON-DEPRECIABLE PLANT</b>										
301	Organization	4,432,918.56									
303	Miscellaneous Intangible Plant	478,038,238.89									
304	Land & Land Rights - Production	412,591.77									
374.1	(365.1) Land & Land Rights - Distribution	219,040.69									
389	Land & Land Rights - General	172,320.91									
	TOTAL Non-Depreciable Plant	483,275,110.82									
	TOTAL Utility Plant in Service	1,172,825,061.98									

(1) Life Span Method Utilized. Interim Retirement Rate. Service Lives Vary.

Table 2 - Gross Salvage

**Bay State Gas Company**

**Summary of Original Cost of Utility Plant In Service and Calculation of Annual Depreciation Rates and Depreciation Expense Based Upon Utilization of Book Depreciation Reserve and Average Remaining Lives as of December 31, 2003**

Account No. (a)	Description (b)	Original Cost 12/31/03 (c)	Estimated Future Net Salvage % (d)	Original Cost Less Salvage (e)	Book Depreciation Reserve (g)	Net Original Cost Less Salvage (h)	A.S.L./ Survivor Curve (i)	Average Remaining Life (j)	Annual Depreciation Accrual (k)	Annual Depreciation Rate (l)
<b>DEPRECIABLE PLANT</b>										
305	Production Equipment	2,298,906.89	0%	2,298,906.89	0.00	162,863.47	42-L3	13.5	0.00	0.00%
	Structures & Improvements	4,193,151.80	0%	4,193,151.80	-162,863.47	36-R2.5	13.4	12,153.99	0.29%	
311	L.P. Gas Equipment	835,037.49	0%	835,037.49	0.00	0.00	20-R4	8.9	0.00	0.00%
320	Other Equipment	16,536,014.07	0%	16,536,014.07	0.00	0.00	27-R4	20.2	0.00	0.00%
321	LNG Equipment									
	TOTAL Production Equipment	23,863,110.25	0%	23,863,110.25	-162,863.47	162,863.47			12,153.99	0.05%
	Transmission and Distribution Plant									
374	(365) Rights of Way	79,051.37	0%	79,051.37	0.00	0.00	75-R3	45.9	0.00	0.00%
375.2	(366) Structures & Improvement	2,108,612.14	0%	2,108,612.14	0.00	0.00	54-L3	11.5	0.00	0.00%
	Mains									
376.1	(367.1) Cast Iron	5,710,347.02	0%	5,710,347.02	0.00	0.00	75-R2	29.3	0.00	0.00%
376.2	(367.2) Steel Mains - Coated/Wrapped	143,919,724.75	0%	143,919,724.75	0.00	0.00	55-R4	33.0	0.00	0.00%
376.3	(367.3) Steel Mains - Bare	2,564,982.88	0%	2,564,982.88	0.00	0.00	74-R3	11.7	0.00	0.00%
376.4	(367.4) Plastic Mains	116,579,215.34	0%	116,579,215.34	0.00	0.00	55-S2	46.3	0.00	0.00%
376.5	(367.5) Joint Seals	19,580,594.04	0%	19,580,594.04	0.00	0.00	23-R5	12.2	0.00	0.00%
376.6	(367.6) Cathodic Protection	7,381,476.44	0%	7,381,476.44	0.00	0.00	19-S5	10.9	0.00	0.00%
	Total Account 376 (367)	295,736,340.47	0%	295,736,340.47	0.00	0.00			0.00	0.00%
394.1	(368) Compressor Station Equipment	327,265.05	0%	327,265.05	0.00	0.00	22-R2.5	5.3	0.00	0.00%
378	(369) Meas. & Reg. Station Equip.	11,275,919.37	0%	11,275,919.37	0.00	0.00	39-R4	27.8	0.00	0.00%
379	Other Equipment	510,251.60	0%	510,251.60	0.00	0.00	35-R3	22.3	0.00	0.00%
	Services									
380.2	Steel - Coated/Wrapped	55,850,176.27	0%	55,850,176.27	0.00	0.00	56-R3	34.4	0.00	0.00%
380.3	Steel - Bare	543,808.14	0%	543,808.14	0.00	0.00	60-R4	8.3	0.00	0.00%
380.4	Plastic	160,471,566.05	0%	160,471,566.05	0.00	0.00	55-R3	45.5	0.00	0.00%
380.5	Copper	167,744.59	0%	167,744.59	0.00	0.00	55-R3	20.6	0.00	0.00%
	Total Account 380	217,033,295.05	0%	217,033,295.05	0.00	0.00			0.00	0.00%

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Bay State Gas Company

**Summary of Original Cost of Utility Plant in Service and Calculation of Annual Depreciation Rates and Depreciation Expense Based Upon Utilization of Book Depreciation Reserve and Average Remaining Lives as of December 31, 2003**

Table 2 - Gross Salvage

**Bay State Gas Company**

**Summary of Original Cost of Utility Plant in Service and Calculation of  
Annual Depreciation Rates and Depreciation Expense Based Upon Utilization of  
Book Depreciation Reserve and Average Remaining Lives as of December 31, 2003**

Account No. (a)	Description (b)	Original Cost 12/31/023 (c)	Estimated Future Net Salvage % (d)	Original Cost Less Amount (e)	Book Depreciation Reserve (f)	Net Original Cost Less Salvage (g)	A.S.L./ Survivor Curve (i)	Average Remaining Life (j)	Annual Depreciation Accrual (k)	Annual Depreciation Rate (l)
386.0	Water Heaters	11,496,963.72								
386.2	Boilers	569,752.00								
386.3	Conversion Burners	7,727,861.00								
	TOTAL Depreciable Plant	689,549,951.16								
	<b>NON-DEPRECIABLE PLANT</b>									
301	Organization	4,432,918.56								
303	Miscellaneous Intangible Plant	478,038,238.89								
304	Land & Land Rights - Production	412,591.77								
374.1	(365.1) Land & Land Rights - Distribution	219,040.69								
389	Land & Land Rights - General	172,320.91								
	TOTAL Non-Depreciable Plant	483,275,110.82								
	TOTAL Utility Plant in Service	1,172,825,061.98								

(1) Life Span Method Utilized. Interim Retirement Rate. Service Lives Vary.

Table 2 - COR

**Bay State Gas Company**

**Summary of Original Cost of Utility Plant in Service and Calculation of Annual Depreciation Rates and Depreciation Expense Based Upon Utilization of Book Depreciation Reserve and Average Remaining Lives as of December 31, 2003**

Account No. (a)	Description (b)	Original Cost 12/31/03 (c)	Estimated Future Net Salvage % (d)	Original Cost Less Salvage (e)	Book Depreciation Reserve (f)	Net Original Cost Less Salvage (g)	A.S.L./ Survivor Curve (i)	Average Remaining Life (j)	Annual Depreciation Accrual (k)	Annual Depreciation Rate (l)
<b>DEPRECIABLE PLANT</b>										
305	Production Equipment	2,298,906.89	-5%	-114,945.34	2,413,852.23	62,877.01	52,068.33 (1)	42-L3	13.5	3,856.91 0.17%
311	Structures & Improvements	4,193,151.80	0%	0.00	4,193,151.80	0.00	0.00	36-R2.5	13.4	0.00 0.00%
320	L.P. Gas Equipment	835,037.49	0%	0.00	835,037.49	0.00	0.00	20-R4	8.9	0.00 0.00%
321	Other Equipment	16,536,014.07	0%	0.00	16,536,014.07	0.00	0.00	27-R4	20.2	0.00 0.00%
	<b>TOTAL Production Equipment</b>	<b>23,863,110.25</b>	<b>0%</b>	<b>-114,945.34</b>	<b>23,978,055.59</b>	<b>62,877.01</b>	<b>52,068.33</b>		<b>3,856.91</b>	<b>0.02%</b>
374	Transmission and Distribution Plant	79,051.37	0%	0.00	79,051.37	0.00	0.00	75-R3	45.9	0.00 0.00%
375.2	(365) Rights of Way (366) Structures & Improvement	2,108,612.14	-5%	-105,430.61	2,214,042.75	73,624.32	31,806.29 (1)	54-L3	11.5	2,765.76 0.13%
<b>Mains</b>										
376.1	(367.1) Cast Iron	5,710,347.02	-15%	-856,552.05	6,566,899.07	339,912.07	516,639.98	75-R2	29.3	17,632.76 0.31%
376.2	(367.2) Steel Mains - Coated/Wrapped	143,919,724.75	-15%	-21,587,958.71	165,507,683.46	3,673,970.26	17,913,988.45	55-R4	33.0	542,848.13 0.38%
376.3	(367.3) Steel Mains - Bare	2,564,982.88	-15%	-384,747.43	2,949,730.31	217,586.97	167,170.46	74-R3	11.7	14,287.22 0.56%
376.4	(367.4) Plastic Mains	116,579,215.34	-15%	-17,486,882.30	134,006,097.64	1,654,305.80	15,832,576.50	55-S2	46.3	341,956.30 0.29%
376.5	(367.5) Joint Seals	19,580,594.04	-15%	-2,937,089.11	22,517,683.15	854,222.55	2,082,866.56	23-R5	12.2	170,726.77 0.87%
376.6	(367.6) Cathodic Protection	7,381,476.44	-15%	-1,107,221.47	8,488,697.91	296,832.55	810,388.92	19-S5	10.9	74,347.61 1.01%
	<b>Total Account 376 (367)</b>	<b>295,736,340.47</b>	<b>-15%</b>	<b>-44,360,451.07</b>	<b>340,096,791.54</b>	<b>7,036,830.20</b>	<b>37,323,620.87</b>		<b>1,161,798.79</b>	<b>0.39%</b>
394.1	(368) Compressor Station Equipment	327,265.05	0%	0.00	327,265.05	0.00	0.00	22-R2.5	5.3	0.00 0.00%
378	(369) Meas. & Reg. Station Equip.	11,275,919.37	-5%	-563,795.97	11,839,715.34	154,597.34	409,198.63	39-R4	27.8	14,719.38 0.13%
379	Other Equipment	510,251.60	0%	0.00	510,251.60	0.00	0.00	35-R3	22.3	0.00 0.00%
<b>Services</b>										
380.2	Steel - Coated/Wrapped	55,850,176.27	-170%	-94,945,299.66	150,795,475.93	30,606,557.19	64,338,742.47	56-R3	34.4	1,870,312.28 3.35%
380.3	Steel - Bare	543,808.14	-170%	-924,473.84	1,488,281.98	665,171.65	259,302.19	60-R4	8.3	31,241.23 5.74%
380.4	Plastic	160,471,566.05	-170%	#####	433,213,228.34	39,013,709.35	233,787,952.94	55-R3	45.5	5,138,196.77 3.20%
380.5	Copper	167,744.59	-170%	-285,165.80	452,910.39	146,847.64	138,318.16	55-R3	20.6	6,714.47 4.00%
	<b>Total Account 380</b>	<b>217,033,295.05</b>	<b>-170%</b>	<b>#####</b>	<b>585,989,896.64</b>	<b>70,432,285.83</b>	<b>298,524,315.76</b>		<b>7,046,464.75</b>	<b>3.25%</b>

Table 2 - COR

**Bay State Gas Company**

**Summary of Original Cost of Utility Plant in Service and Calculation of Annual Depreciation Rates and Depreciation Expense Based Upon Utilization of Book Depreciation Reserve and Average Remaining Lives as of December 31, 2003**

Account No.	Description	Original Cost 12/31/03	Estimated Future Net Salvage		Original Cost Less Salvage	Book Depreciation Reserve	Net Original Cost Less Salvage	A.S.L./ Survivor Curve	Average Remaining Life	Annual Depreciation Accrual	Annual Depreciation Rate
			(c)	(d)							
381	Meters	24,527,065.54	0%	0.00	24,527,065.54	0.00	23,865,715.24	28-S6	15.0	0.00	0.00%
382	Meter Installations	42,380,403.42	-60%	-25,428,242.05	67,808,645.47	1,562,526.81	53-S3	41.0	582,090.62	1.37%	
383	House Regulators	13,562,019.77	-10%	-1,366,201.98	14,918,221.75	0.00	1,356,201.98	31-S6	18.1	74,928.29	0.55%
394,3	(387) Other Equipment	1,814,797.11	0%	0.00	1,814,797.11	16,919.29	-16,919.29	11-L4	4.8	-3,524.85	-0.19%
	TOTAL Trans. & Distr. Plant	609,355,020.89	-72%	#####	1,050,125,744.16	79,276,783.79	361,493,939.48		8,879,242.73	1.46%	
	<b>General Plant</b>										
375,7	(390) Structures & Improvements	6,939,631.18	0%	0.00	6,939,631.18	50,348.17	-50,348.17 (1)	90-R1.5	32.9	-1,530.34	-0.02%
	<b>Office Furniture &amp; Equipment</b>										
391,1	Office Furniture & Equipment	3,749,589.10	0%	0.00	3,749,589.10	0.00	0.00	9-L3	3.7	0.00	0.00%
391,2	Computer & IT Equipment	7,481,692.89	0%	0.00	7,481,692.89	0.00	0.00	7-R4	2.8	0.00	0.00%
	Total Account 391	11,231,281.99	0%	0.00	11,231,281.99	0.00	0.00		0.00	0.00	0.00%
392	Transportation Equipment	2,638,835.77	0%	0.00	2,638,835.77	0.00	0.00	10-R3	3.0	0.00	0.00%
393	Stores Equipment	50,472.55	0%	0.00	50,472.55	0.00	0.00	19-R3	9.8	0.00	0.00%
394	Tools, Shop & Garage Equipment	1,709,378.09	0%	0.00	1,709,378.09	0.00	0.00	21-R3	12.8	0.00	0.00%
396	Power Operated Equipment	489,502.88	0%	0.00	489,502.88	0.00	0.00	13-R3	4.3	0.00	0.00%
	<b>Communication Equipment</b>										
397,1	Communication Equipment	7,033,594.41	0%	0.00	7,033,594.41	0.00	0.00	17-R2	10.0	0.00	0.00%
397,2	Metscan Meter Interface Units	6,419,326.08	0%	0.00	6,419,326.08	0.00	0.00	9-R5	3.6	0.00	0.00%
	Total Account 397	13,452,920.49	0%	0.00	13,452,920.49	0.00	0.00		0.00	0.00	0.00%
398	Miscellaneous Equipment	25,220.35	0%	0.00	25,220.35	0.00	0.00	18-L1.5	10.2	0.00	0.00%
	TOTAL General Plant	36,537,243.30	0%	0.00	36,537,243.30	50,348.17	-50,348.17		-1,530.34	0.00%	
	Sub-TOTAL Depreciable Plant	669,755,374.44	-66%	#####	1,110,641,043.05	79,390,008.97	361,495,659.64		8,881,569.30	1.33%	

Table 2 - COR

**Bay State Gas Company**

**Summary of Original Cost of Utility Plant in Service and Calculation of Annual Depreciation Rates and Depreciation Expense Based Upon Utilization of Book Depreciation Reserve and Average Remaining Lives as of December 31, 2003**

Account No. (a)	Description (b)	Original Cost 12/31/03 (c)	Estimated Future Net Salvage % (d)	Original Cost Less Salvage Amount (e)	Book Depreciation Reserve (g)	Net Original Cost Less Salvage (h)	A.S.L./ Survivor Curve (i)	Average Remaining Life (j)	Annual Depreciation Accrual (k)	Annual Depreciation Rate (l)
386.0	Water Heaters	11,496,963.72								
386.2	Boilers	569,752.00								
386.3	Conversion Burners	7,727,861.00								
	TOTAL Depreciable Plant	689,549,951.16								
	<b>NON-DEPRECIABLE PLANT</b>									
301	Organization	4,432,918.56								
303	Miscellaneous Intangible Plant	478,038,238.89								
304	Land & Land Rights - Production	412,591.77								
374.1	(365.1) Land & Land Rights - Distributive	219,040.69								
389	Land & Land Rights - General	172,320.91								
	TOTAL Non-Depreciable Plant	483,275,110.82								
	<b>TOTAL Utility Plant in Service</b>	<b>1,172,825,061.98</b>								

(1) Life Span Method Utilized. Interim Retirement Rate. Service Lives Vary.

Table 3

**Bay State Gas Company**

Allocation of Book Depreciation Reserves For Selected Accounts as of  
 December 31, 2003 Based Upon Calculated Depreciation Reserves as of  
 December 21, 2003

Acct. No. (a)	Account Description (b)	Original Cost 12-31-03 (c)	A.S.L./ Survivor Curve (d)	Salvage % (e)	Theoretical Depreciation Reserve (f)	Total Sub-Accnt		Non-Allocated Book Reserve (h)	Total Book Reserve 12-31-03 (i)							
						Book Depr. Reserve Allocation (g)	Book Reserve (j)									
<b>DEPRECIABLE PLANT</b>																
<b>Production Equipment</b>																
305	Structures & Improvements	2,298,906.89	42-L3	-5%				1,463,912	1,463,911.82							
311	L.P. Gas Equipment	4,193,151.80	36-R2.5	0%				3,153,264	3,153,263.56							
320	Other Equipment	835,037.49	20-R4	0%				280,692	280,691.71							
321	LNG Equipment	16,536,014.07	27-R4	0%				4,483,147	4,483,146.57							
TOTAL Production Equipment				23,863,110.25				9,381,014	9,381,013.66							
<b>Transmission and Distribution Plant</b>																
374	(365) Rights of Way	79,051.37	75-R3	0%				0	0.00							
375.2	(366) Structures & Improvement	2,108,612.14	54-L3	-5%				1,461,442	1,461,441.60							
<b>Mains</b>																
376.1	(367.1) Cast Iron	5,710,347.02	75-R2	-15%	3,406,594	2,544,864			2,544,863.66							
376.2	(367.2) Steel Mains - Coated/Wrapped	143,919,724.75	55-R4	-15%	60,653,626	45,310,715			45,310,714.67							
376.3	(367.3) Steel Mains - Bare	2,564,982.88	74-R3	-15%	2,046,368	1,528,720			1,528,719.76							
376.4	(367.4) Plastic Mains	116,579,215.34	55-S2	-15%	22,236,793	16,611,785			16,611,784.81							
376.5	(367.5) Joint Seals	19,580,594.04	23-R5	-15%	9,606,564	7,176,492			7,176,492.31							
376.6	(367.6) Cathodic Protection	7,381,476.44	19-S5	-15%	3,233,061	2,415,227			2,415,227.48							
Total Account 376 (367)				295,736,340.47		101,183,006	75,587,803		75,587,802.69							
394.1	(368) Compressor Station Equipment	327,265.05	22-R2.5	0%				238,059	238,059.12							
378	(369) Meas. & Reg. Station Equip.	11,275,919.37	39-R4	-5%				3,330,869	3,330,869.17							
379	Other Equipment	510,251.60	35-R3	0%				209,902	209,902.34							
<b>Services</b>																
380.2	Steel - Coated/Wrapped	55,850,176.27	56-R3	-170%	43,139,068	60,119,216			60,119,215.56							
380.3	Steel - Bare	543,808.14	60-R4	-170%	1,366,867	924,474			924,473.84							
380.4	Plastic	160,471,566.05	55-R3	-170%	39,272,611	54,730,866			54,730,866.37							
380.5	Copper	167,744.59	55-R3	-170%	224,762	313,232			313,231.50							
Total Account 380				217,033,295.05		84,003,308	116,087,787		116,087,787.27							
381	Meters	24,527,065.54	28-S6	2%				9,486,756	9,486,755.98							
382	Meter Installations	42,380,403.42	53-S3	-60%				9,736,769	9,736,768.97							
383	House Regulators	13,562,019.77	31-S6	-10%				4,955,322	4,955,322.40							
394.3	(387) Other Equipment	1,814,797.11	11-L4	0%				515,595	515,594.73							
TOTAL Trans. & Distr. Plant				609,355,020.89		185,186,314	191,675,590	29,934,714	221,610,304.27							
<b>General Plant</b>																
375.7	(390) Structures & Improvements	6,939,631.18	90-R1.5	3%				1,941,039	1,941,038.72							
<b>Office Furniture &amp; Equipment</b>																
391.1	Office Furniture & Equipment	3,749,589.10	9-L3	0%	3,089,806	3,089,806			3,089,806.00							
391.2	Computer & IT Equipment	7,481,692.89	7-R4	0%	1,718,040	3,222,916			3,222,916.13							
Total Account 391				11,231,281.99		4,807,846	6,312,722		6,312,722.13							
392	Transportation Equipment	2,638,835.77	10-R3	8%				1,329,582	1,329,581.50							
393	Stores Equipment	50,472.55	19-R3	0%				-5,950	-5,950.26							
394	Tools, Shop & Garage Equipment	1,709,378.09	21-R3	0%				743,756	743,755.51							
396	Power Operated Equipment	489,502.88	13-R3	2%				222,783	222,782.71							

Table 3

**Bay State Gas Company**

Allocation of Book Depreciation Reserves For Selected Accounts as of  
 December 31, 2003 Based Upon Calculated Depreciation Reserves as of  
 December 21, 2003

Acct. No. (a)	Account Description (b)	Original Cost 12-31-03 (c)	A.S.L./ Survivor Curve (d)	Salvage % (e)	Theoretical Depreciation Reserve (f)	Total Sub-Acct		Non-Allocated Book Reserve (h)	Total Book Reserve 12-31-03 (i)
						Book Depr. Reserve Allocation (g)	Book Reserve (j)		
<b>Communication Equipment</b>									
397.1	Communication Equipment	7,033,594.41	17-R2	0%	2,628,546	2,254,128			2,254,128.19
397.2	Metscan Meter Interface Units	6,419,326.08	9-R5	0%	11,055,871	9,481,040			9,481,040.26
	Total Account 397	13,452,920.49			13,684,417	11,735,168			11,735,168.45
398	Miscellaneous Equipment	25,220.35	18-L1.5	0%				12,366	12,366.29
	TOTAL General Plant	36,537,243.30			18,492,263	18,047,891	4,243,574	22,291,465.05	
	Sub-TOTAL Depreciable Plant	669,755,374.44			203,678,577	209,723,481	43,559,302	253,282,782.98	
<b>AMORTIZATION ACCOUNTS (Not Studied)</b>									
386.0	Water Heaters	11,496,963.72					1,933,968	1,933,967.50	
386.2	Boilers	569,752.00					1,120,110	1,120,110.07	
386.3	Conversion Burners	7,727,861.00					403,724	403,724.49	
	TOTAL Depreciable Plant	689,549,951.16				209,723,481	47,017,105	256,740,585.04	
<b>NON-DEPRECIABLE PLANT</b>									
301	Organization	4,432,918.56					3,312,989	3,312,989.01	
303	Miscellaneous Intangible Plant	478,038,238.89					71,922,000	71,921,999.93	
304	Land & Land Rights - Production	412,591.77					0	0.00	
374.1	(365.1) Land & Land Rights - Distributor	219,040.69					0	0.00	
389	Land & Land Rights - General	172,320.91					0	0.00	
	TOTAL Non-Depreciable Plant	483,275,110.82				0	75,234,989	75,234,988.94	
	TOTAL Utility Plant in Service	1,172,825,061.98				209,723,481	122,252,093	331,975,573.98	

Table 4

Bay State Gas Company

Summary of Original Cost of Utility Plant in Service as of December 31, 2003  
Per Books, Pending Retirements, and Adjusted Original Cost Per Depreciation Study

Acct. No. (a)	Account Description (b)	Original Cost Per Books 12-31-03 (c)	Pending Retirements (h)	Adjusted Original Cost Per Depr. Study 12-31-03 (i)
<b><u>DEPRECIABLE PLANT</u></b>				
<b><u>Production Equipment</u></b>				
305	Structures & Improvements	2,298,906.89		2,298,906.89
311	L.P. Gas Equipment	4,193,151.80		4,193,151.80
320	Other Equipment	835,037.49		835,037.49
321	LNG Equipment	16,536,014.07		16,536,014.07
	TOTAL Production Equipment	23,863,110.25	0.00	23,863,110.25
<b><u>Transmission and Distribution Plant</u></b>				
374	(365) Rights of Way	79,051.37		79,051.37
375.2	(366) Structures & Improvement	2,108,612.14		2,108,612.14
<b><u>Mains</u></b>				
376.1	(367.1) Cast Iron	5,710,347.02		5,710,347.02
376.2	(367.2) Steel Mains - Coated/Wrapped	143,919,724.75		143,919,724.75
376.3	(367.3) Steel Mains - Bare	2,564,982.88		2,564,982.88
376.4	(367.4) Plastic Mains	116,579,215.34		116,579,215.34
376.5	(367.5) Joint Seals	19,580,594.04		19,580,594.04
376.6	(367.6) Cathodic Protection	7,381,476.44		7,381,476.44
	Total Account 376 (367)	295,736,340.47	0.00	295,736,340.47
394.1	(368) Compressor Station Equipment	327,265.05		327,265.05
378	(369) Meas. & Reg. Station Equip.	11,275,919.37		11,275,919.37
379	Other Equipment	510,251.60		510,251.60
<b><u>Services</u></b>				
380.2	Steel - Coated/Wrapped	55,850,176.27		55,850,176.27
380.3	Steel - Bare	543,808.14		543,808.14
380.4	Plastic	160,471,566.05		160,471,566.05
380.5	Copper	167,744.59		167,744.59
	Total Account 380	217,033,295.05	0.00	217,033,295.05
381	Meters	24,527,065.54		24,527,065.54
382	Meter Installations	42,380,403.42		42,380,403.42
383	House Regulators	13,562,019.77		13,562,019.77
394.3	(387) Other Equipment	1,814,797.11		1,814,797.11
	TOTAL Trans. & Distr. Plant	609,355,020.89	0.00	609,355,020.89
<b><u>General Plant</u></b>				
375.7	(390) Structures & Improvements	6,939,631.18		6,939,631.18
<b><u>Office Furniture &amp; Equipment</u></b>				
391.1	Office Furniture & Equipment	3,749,589.10		3,749,589.10
391.2	Computer & IT Equipment	7,481,692.89		7,481,692.89

Table 4

Bay State Gas Company

Summary of Original Cost of Utility Plant in Service as of December 31, 2003  
Per Books, Pending Retirements, and Adjusted Original Cost Per Depreciation Study

Acct. No. (a)	Account Description (b)	Original Cost Per Books 12-31-03 (c)	Pending Retirements (h)	Adjusted Original Cost Per Depr. Study 12-31-03 (i)
	Total Account 391	11,231,281.99	0.00	11,231,281.99
392	Transportation Equipment	2,638,835.77		2,638,835.77
393	Stores Equipment	50,472.55		50,472.55
394	Tools, Shop & Garage Equipment	1,709,378.09		1,709,378.09
396	Power Operated Equipment	489,502.88		489,502.88
	<b>Communication Equipment</b>			
397.1	Communication Equipment	7,033,594.41		7,033,594.41
397.2	Metscan Meter Interface Units	15,066,431.00	8,647,104.92	6,419,326.08
	Total Account 397	22,100,025.41	8,647,104.92	13,452,920.49
398	Miscellaneous Equipment	25,220.35		25,220.35
	TOTAL General Plant	45,184,348.22	8,647,104.92	36,537,243.30
	Sub-TOTAL Depreciable Plant	678,402,479.36	8,647,104.92	669,755,374.44
	<b>AMORTIZATION ACCOUNTS (Not Studied)</b>			
386.0	Water Heaters	11,496,963.72		11,496,963.72
386.2	Boilers	569,752.00		569,752.00
386.3	Conversion Burners	7,727,861.00		7,727,861.00
	TOTAL Depreciable Plant	698,197,056.08	8,647,104.92	689,549,951.16
	<b>NON-DEPRECIABLE PLANT</b>			
301	Organization	4,432,918.56		4,432,918.56
303	Miscellaneous Intangible Plant	478,038,238.89		478,038,238.89
304	Land & Land Rights - Production	412,591.77		412,591.77
374.1	(365.1) Land & Land Rights - Distribution	219,040.69		219,040.69
389	Land & Land Rights - General	172,320.91		172,320.91
	TOTAL Non-Depreciable Plant	483,275,110.82	0.00	483,275,110.82
	TOTAL Utility Plant in Service	1,181,472,166.90	8,647,104.92	1,172,825,061.98

Table 5

**Bay State Gas Company**

**Summary of Depreciation Reserve Related to Utility Plant in Service as of December 31, 2003**  
**Per Books, Pending Retirements, and Adjusted Depreciation Reserve Per Depreciation Study**

Acct. No.	Account Description (b)	Depreciation Reserve Per Books 12-31-03 (c)	Pending Retirements (h)	Adjusted Depreciation Reserve Per Depr. Study 12-31-03 (i)
<b><u>DEPRECIABLE PLANT</u></b>				
<b><u>Production Equipment</u></b>				
305	Structures & Improvements	1,463,911.82		1,463,911.82
311	L.P. Gas Equipment	3,153,263.56		3,153,263.56
320	Other Equipment	280,691.71		280,691.71
321	LNG Equipment	4,483,146.57		4,483,146.57
	TOTAL Production Equipment	9,381,013.66	0.00	9,381,013.66
<b><u>Transmission and Distribution Plant</u></b>				
374	(365) Rights of Way	0.00		0.00
375.2	(366) Structures & Improvement	1,461,441.60		1,461,441.60
<b><u>Mains</u></b>				
376.1	(367.1) Cast Iron	2,544,863.66		2,544,863.66
376.2	(367.2) Steel Mains - Coated/Wrapped	45,310,714.67		45,310,714.67
376.3	(367.3) Steel Mains - Bare	1,528,719.76		1,528,719.76
376.4	(367.4) Plastic Mains	16,611,784.81		16,611,784.81
376.5	(367.5) Joint Seals	7,176,492.31		7,176,492.31
376.6	(367.6) Cathodic Protection	2,415,227.48		2,415,227.48
	Total Account 376 (367)	75,587,802.69	0.00	75,587,802.69
394.1	(368) Compressor Station Equipment	238,059.12		238,059.12
378	(369) Meas. & Reg. Station Equip.	3,330,869.17		3,330,869.17
379	Other Equipment	209,902.34		209,902.34
<b><u>Services</u></b>				
380.2	Steel - Coated/Wrapped	60,119,215.56		60,119,215.56
380.3	Steel - Bare	924,473.84		924,473.84
380.4	Plastic	54,730,866.37		54,730,866.37
380.5	Copper	313,231.50		313,231.50
	Total Account 380	116,087,787.27	0.00	116,087,787.27
381	Meters	9,486,755.98		9,486,755.98
382	Meter Installations	9,736,768.97		9,736,768.97
383	House Regulators	4,955,322.40		4,955,322.40
394.3	(387) Other Equipment	515,594.73		515,594.73
	TOTAL Trans. & Distr. Plant	221,610,304.27	0.00	221,610,304.27
<b><u>General Plant</u></b>				
375.7	(390) Structures & Improvements	1,941,038.72		1,941,038.72
<b><u>Office Furniture &amp; Equipment</u></b>				
391.1	Office Furniture & Equipment	3,089,806.00		3,089,806.00
391.2	Computer & IT Equipment	3,222,916.13		3,222,916.13

**Table 5**  
**Bay State Gas Company**

**Summary of Depreciation Reserve Related to Utility Plant in Service as of December 31, 2003**  
**Per Books, Pending Retirements, and Adjusted Depreciation Reserve Per Depreciation Study**

Acct. No. (a)	Account Description (b)	Depreciation Reserve Per Books 12-31-03 (c)	Pending Retirements (h)	Adjusted Depreciation Reserve Per Depr. Study 12-31-03 (i)
	Total Account 391	6,312,722.13	0.00	6,312,722.13

Table 5

**Bay State Gas Company**

**Summary of Depreciation Reserve Related to Utility Plant in Service as of December 31, 2003  
 Per Books, Pending Retirements, and Adjusted Depreciation Reserve Per Depreciation Study**

Acct. No.	Account Description	Depreciation Reserve Per Books 12-31-03	Pending Retirements	Adjusted Depreciation Reserve Per Depr. Study 12-31-03
(a)	(b)	(c)	(h)	(i)
392	Transportation Equipment	1,329,581.50		1,329,581.50
393	Stores Equipment	-5,950.26		-5,950.26
394	Tools, Shop & Garage Equipment	743,755.51		743,755.51
396	Power Operated Equipment	222,782.71		222,782.71
<b><u>Communication Equipment</u></b>				
397.1	Communication Equipment	2,254,128.19		2,254,128.19
397.2	Metscan Meter Interface Units	9,481,040.26	8,647,104.92	833,935.34
	Total Account 397	11,735,168.45	8,647,104.92	3,088,063.53
398	Miscellaneous Equipment	12,366.29		12,366.29
	TOTAL General Plant	22,291,465.05	8,647,104.92	13,644,360.13
	Sub-TOTAL Depreciable Plant	253,282,782.98	8,647,104.92	244,635,678.06
<b><u>AMORTIZATION ACCOUNTS (Not Studied)</u></b>				
386.0	Water Heaters	1,933,967.50		1,933,967.50
386.2	Boilers	1,120,110.07		1,120,110.07
386.3	Conversion Burners	403,724.49		403,724.49
	TOTAL Depreciable Plant	256,740,585.04	8,647,104.92	248,093,480.12
<b><u>NON-DEPRECIABLE PLANT</u></b>				
301	Organization	3,312,989.01		3,312,989.01
303	Miscellaneous Intangible Plant	71,921,999.93		71,921,999.93
304	Land & Land Rights - Production	0.00		0.00
374.1	(365.1) Land & Land Rights - Distribution	0.00		0.00
389	Land & Land Rights - General	0.00		0.00
	TOTAL Non-Depreciable Plant	75,234,988.94	0.00	75,234,988.94
	TOTAL Utility Plant in Service	331,975,573.98	8,647,104.92	323,328,469.06

Bay State Gas Company

**Summary of Original Cost of Utility Plant in Service as of December 31, 2003 and  
Present and Proposed Parameters**

Bay State Gas Company

## Summary of Original Cost of Utility Plant in Service as of December 31, 2003 and Present and Proposed Parameters

COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO THE  
ELEVENTH SET OF INFORMATION REQUESTS FROM THE D.T.E.  
D. T. E. 05-27

Date: June 22, 2005

Responsible: Earl M. Robinson

- DTE-11-42 Refer to Exh. BSG/JES-1, at 38. Of the Company's proposed depreciation expense of \$28,800,958, how much of this amount is attributable to changes in average service lives and how much is attributable to revisions in net salvage? Please show answer in both dollar value and percentage as it relates to the Company's total depreciation expense.

Response:

The requested information is contained on the Excel worksheet for this response, which is an attachment to DTE-11-41.